

ABSTRACT OF THE DISCLOSURE

The present invention relates to a micro-compressor equipped with plurality of compression means comprising a vibrating plate forming the outer wall of the pressure chamber, inlet valve and outlet valve attached to the vibrating plate. The compression means are operated by a certain number of piezo-actuators that are attached to the vibrating plate, inlet valve and outlet valve and perform the function of indraft, compression and exhaustion of working fluid. The piezo-actuators enable the swift operation and precise control in the micro-refrigerator with the size of semiconductor chip. The compression means do not alter the flowing direction of working fluid and the openings for the indraft and exhaustion of working fluid can be aligned in a straight line. As a result, plurality of compression means can be arranged in parallel to maximize the compression capacity.